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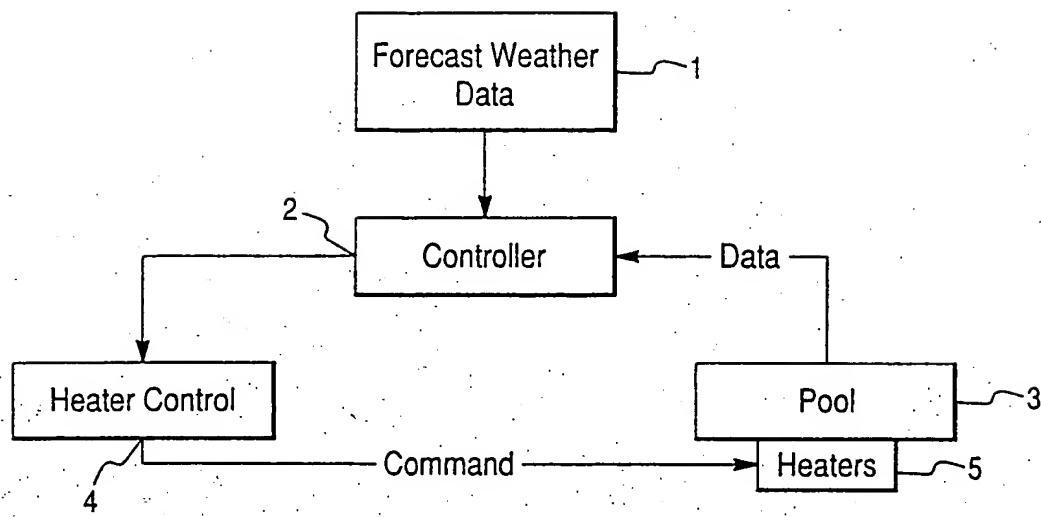
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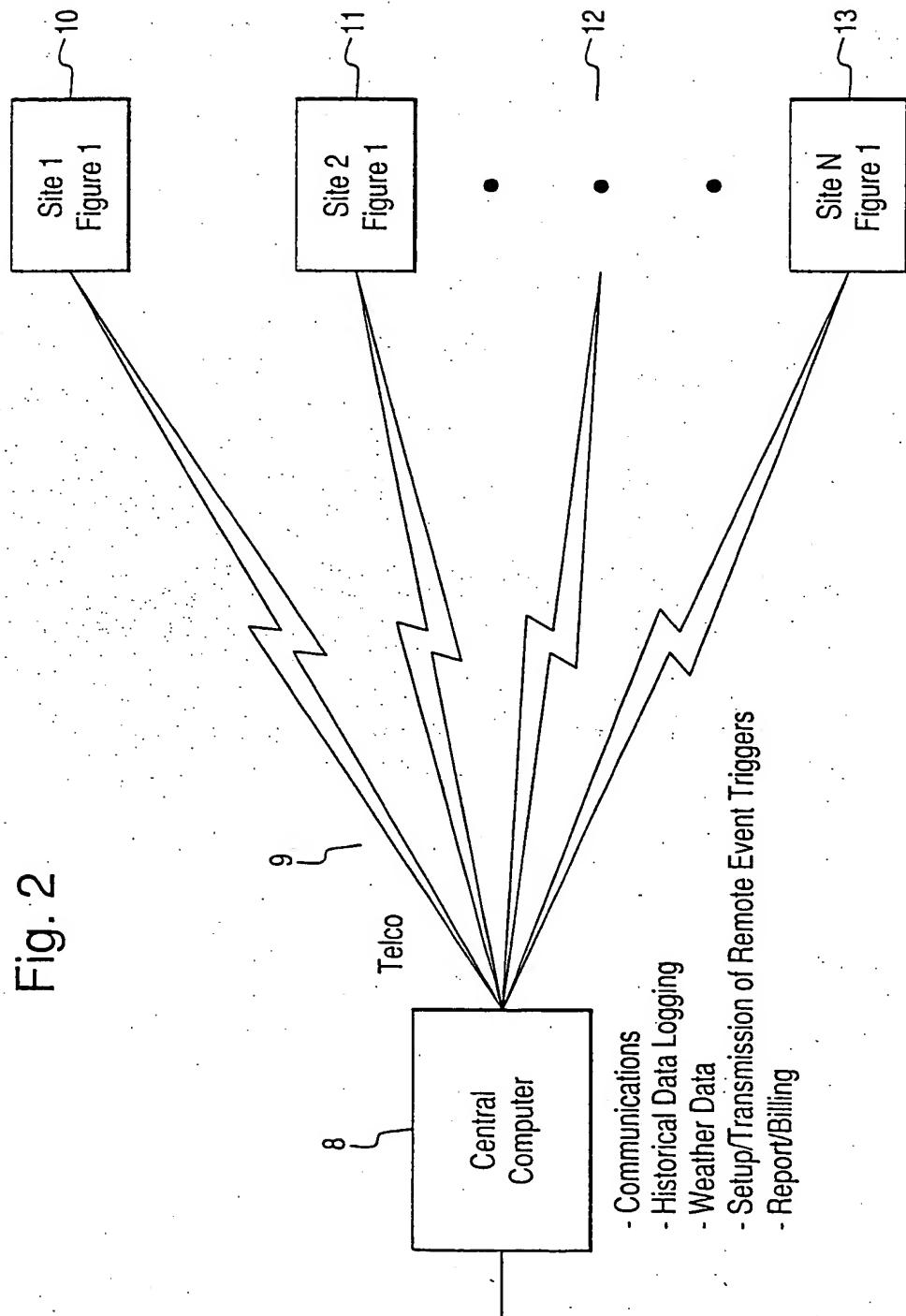
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Fig. 1





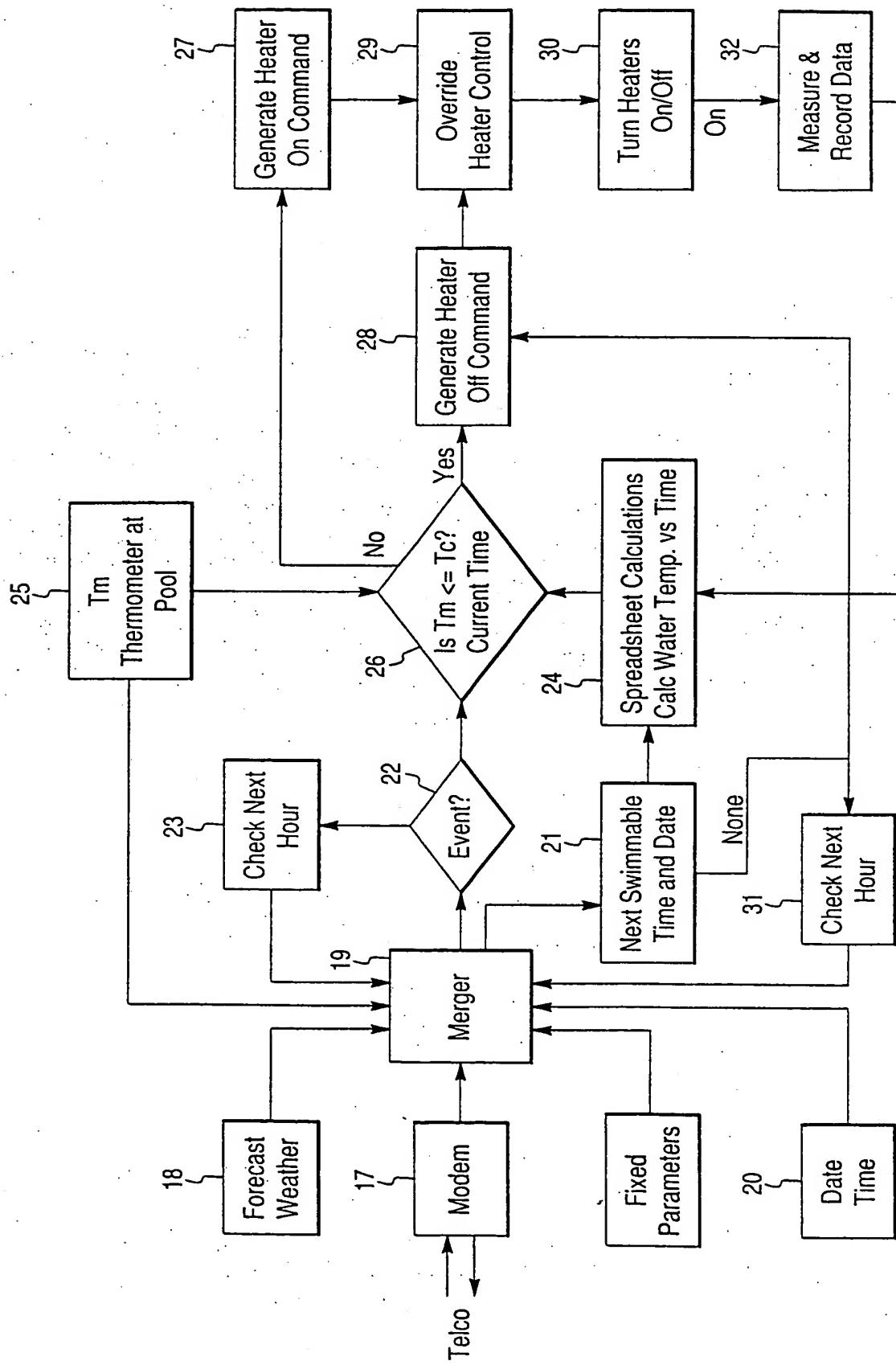
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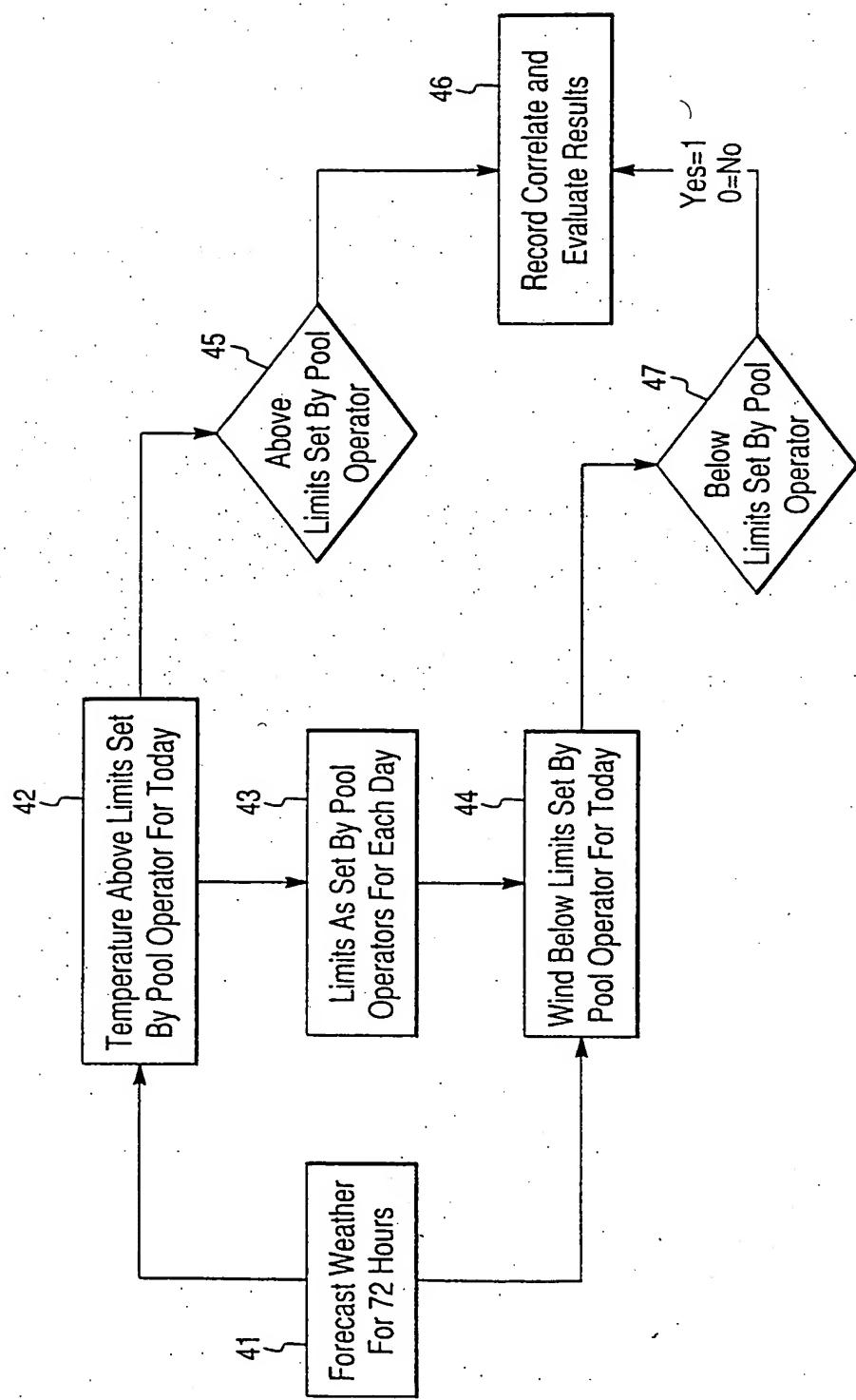
Fig. 3





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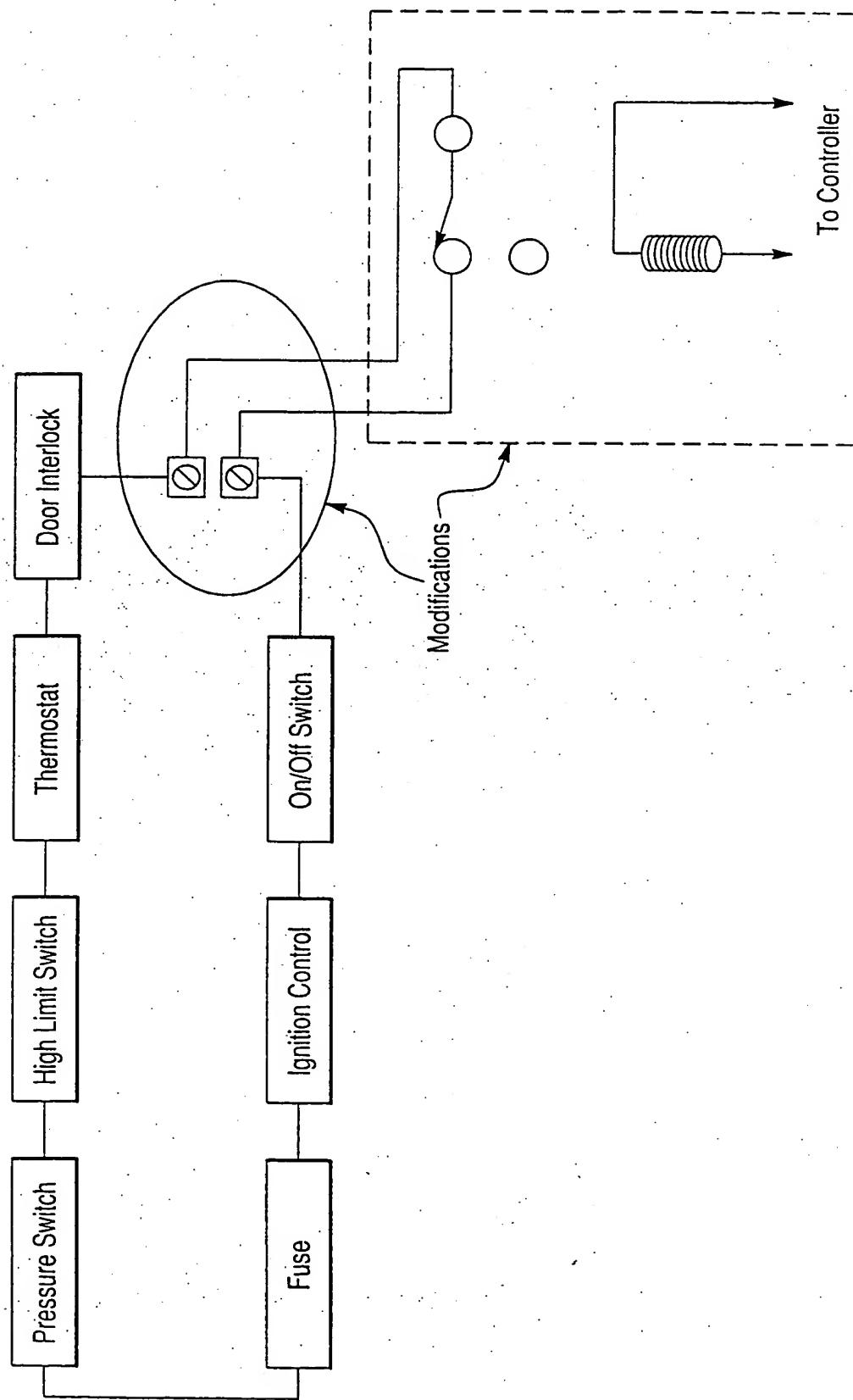
Fig. 4





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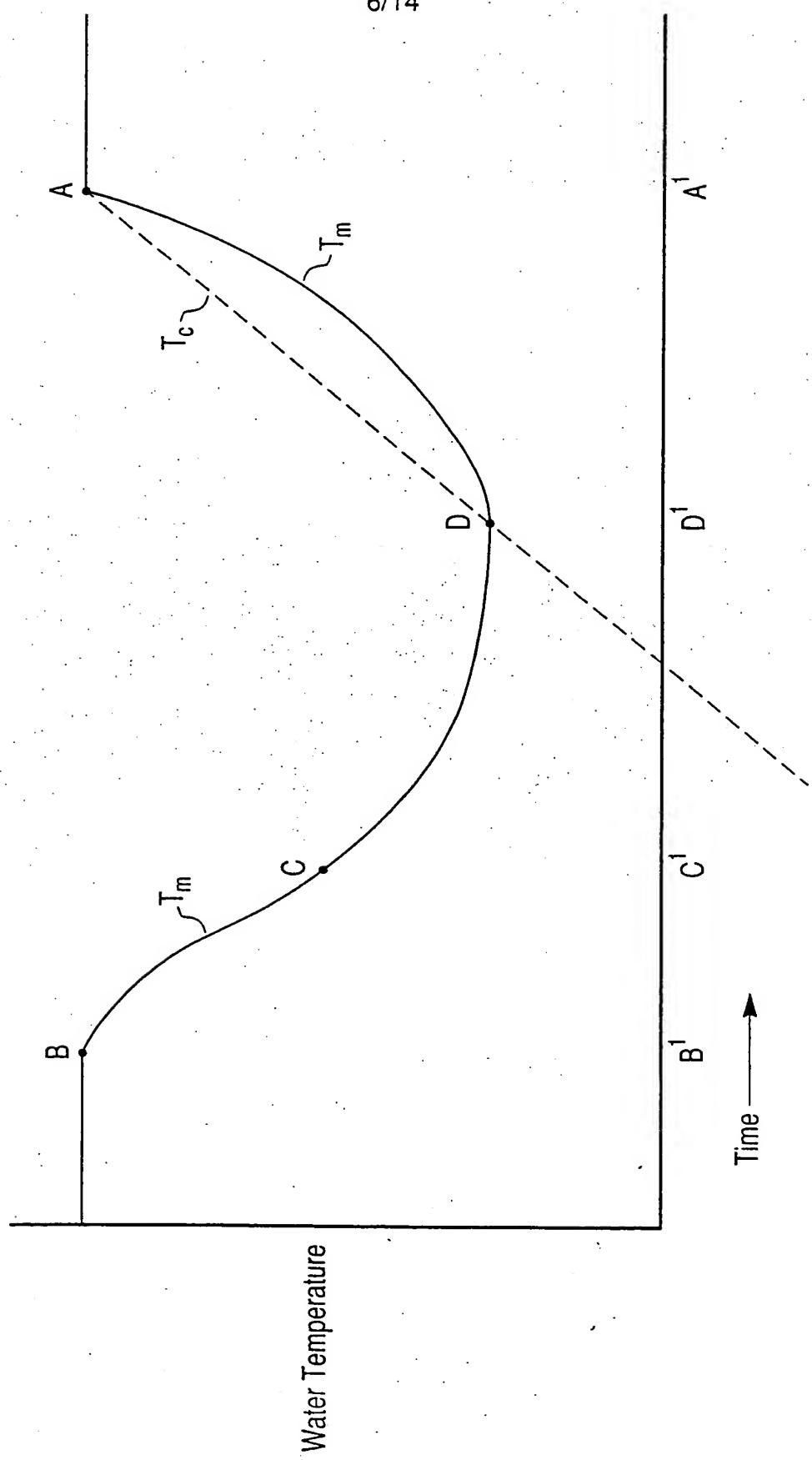
Fig. 5





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Fig. 6





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Fig. 7A

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1	1/15/10	10:01 AM																			
2	Area F	2,400																			
3																					
4	Ibs of water	823,455																			
5	Qh Bl'shr	2,460,000																			
6																					
7	ΔT_h	2.99																			
8	Altitude feet	2300																			
9																					
10																					
11																					
12																					
13																					
14	1/15/10	10:00 AM	0.0	90.0	55.0	45.0	31.4	34.1	0.10	70.0	22.0	0.07	-0.02	15.0	555	509	-0.01	-0.22	0.00	0.20	5.00
15	1/15/10	11:00 AM	1.0	90.0	55.0	45.0	31.4	34.1	0.10	25.4	0.08	-0.01	15.0	571	509	0.01	-0.20	0.00	0.20	5.15	
16	1/15/10	12:00 PM	2.0	90.0	55.0	45.0	31.4	34.1	0.10	28.7	0.09	0.01	15.0	586	509	0.03	-0.18	0.00	0.20	5.30	
17	1/15/10	1:00 PM	3.0	90.0	55.0	45.0	31.4	34.1	0.10	32.1	0.10	0.02	15.0	602	509	0.05	-0.15	0.00	0.20	5.45	
18	1/15/10	2:00 PM	4.0	90.0	55.0	45.0	31.4	34.1	0.10	35.4	0.12	0.03	15.0	618	509	0.07	-0.13	0.00	0.20	5.60	
19	1/15/10	3:00 PM	5.0	90.0	55.0	45.0	31.4	34.1	0.10	38.6	0.13	0.05	15.0	634	509	0.10	-0.11	0.00	0.20	5.75	
20	1/15/10	4:00 PM	6.0	90.0	55.0	45.0	31.4	34.1	0.10	41.8	0.15	0.07	15.0	650	509	0.13	-0.08	0.00	0.20	5.90	
21	1/15/10	5:00 PM	7.0	90.0	55.0	45.0	31.4	34.1	0.10	44.9	0.17	0.09	15.0	666	509	0.17	-0.06	0.00	0.20	6.05	
22	1/15/10	6:00 PM	8.0	90.0	55.0	45.0	31.4	34.1	0.10	48.0	0.18	0.11	15.0	682	509	0.20	-0.03	0.00	0.20	6.20	
23	1/15/10	7:00 PM	9.0	90.0	55.0	45.0	31.4	34.1	0.10	51.0	0.21	0.13	15.0	698	509	0.24	-0.01	0.00	0.20	6.35	
24	1/15/10	8:00 PM	10.0	90.0	55.0	45.0	31.4	34.1	0.10	54.0	0.23	0.15	15.0	712	509	0.28	0.01	0.10	0.00	6.50	
25	1/15/10	9:00 PM	11.0	90.0	55.0	45.0	31.4	34.1	0.10	56.5	0.25	0.17	15.0	726	509	0.33	0.04	0.10	0.00	6.65	
26	1/15/10	10:00 PM	12.0	90.0	55.0	45.0	31.4	34.1	0.10	59.1	0.27	0.20	15.0	740	509	0.37	0.06	0.11	0.00	6.80	
27	1/15/10	11:00 PM	13.0	90.0	55.0	45.0	31.4	34.1	0.10	61.5	0.29	0.22	15.0	753	509	0.42	0.08	0.12	0.00	6.95	
28	1/15/10	12:00 PM	14.0	90.0	55.0	45.0	31.4	34.1	0.10	63.9	0.32	0.25	15.0	766	509	0.47	0.10	0.12	0.00	7.10	
29	1/16/10	1:00 AM	15.0	90.0	55.0	45.0	31.4	34.1	0.10	66.2	0.34	0.27	15.0	779	509	0.53	0.13	0.13	0.00	7.25	
30	1/16/10	2:00 AM	16.0	90.0	55.0	45.0	31.4	34.1	0.10	68.4	0.37	0.30	15.0	792	509	0.58	0.15	0.13	0.00	7.40	
31	1/16/10	3:00 AM	17.0	90.0	55.0	45.0	31.4	34.1	0.10	70.5	0.40	0.33	15.0	804	509	0.64	0.17	0.14	0.00	7.55	
32	1/16/10	4:00 AM	18.0	90.0	55.0	45.0	31.4	34.1	0.10	72.5	0.42	0.35	15.0	816	509	0.70	0.19	0.14	0.00	7.70	
33	1/16/10	5:00 AM	19.0	90.0	55.0	45.0	31.4	34.1	0.10	74.5	0.45	0.38	15.0	827	509	0.77	0.21	0.15	0.00	7.85	
34	1/16/10	6:00 AM	20.0	90.0	55.0	45.0	31.4	34.1	0.10	76.3	0.48	0.41	15.0	838	509	0.85	0.23	0.15	0.00	8.00	
35	1/16/10	7:00 AM	21.0	90.0	55.0	45.0	31.4	34.1	0.10	78.1	0.51	0.45	15.0	850	509	0.86	0.25	0.00	0.00	8.15	
36	1/16/10	8:00 AM	22.0	90.0	55.0	45.0	31.4	34.1	0.10	80.0	0.54	0.45	15.0	863	509	0.87	0.28	0.00	0.20	8.30	
37	1/16/10	9:00 AM	23.0	90.0	55.0	45.0	31.4	34.1	0.10	82.0	0.54	0.45	15.0	863	509	0.90	0.30	0.00	0.00	8.45	

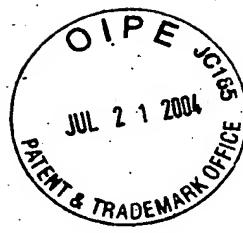


Fig. 7B

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Fig. 7C

A	B	C	D	E	F	G	H	I
1 sh6	Final nov 19							
2 Vm	90 degrees							
3 Vmin(a)	5 mph							
4 WF(m)	0.15							
5								
6 Limit	10 mph							
7								
8		Vwa [mph]	Vwa [mph]	Vwa [mph]	Vwa [mph]	Vwa [mph]	Vwa [mph]	Vwc [mph]
9	Vwf [mph]	a	b	c	d	e		
10 #	[mph]							average
11 0	0	5.0	5.0	5.0	5.0	5.0	25.0	5.0
12 0	1	5.2	5.2	5.2	5.2	5.2	25.8	5.2
13 0	2	5.3	5.3	5.3	5.3	5.3	26.5	5.3
14 0	3	5.5	5.5	5.5	5.5	5.5	27.3	5.5
15 0	4	5.6	5.6	5.6	5.6	5.6	28.0	5.6
16 0	5	5.8	5.8	5.8	5.8	5.8	28.8	5.8
17 0	6	5.9	5.9	5.9	5.9	5.9	29.5	5.9
18 0	7	6.1	6.1	6.1	6.1	6.1	30.3	6.1
19 0	8	6.2	6.2	6.2	6.2	6.2	31.0	6.2
20 0	9	6.4	6.4	6.4	6.4	6.4	31.8	6.4
21 0	10	6.5	6.5	6.5	6.5	6.5	32.5	6.5
22 0	12	6.8	6.8	6.8	6.8	6.8	34.0	6.8
23 0	14	7.1	7.1	7.1	7.1	7.1	35.5	7.1
24 0	16	7.4	7.4	7.4	7.4	7.4	37.0	7.4
25 0	18	7.7	7.7	7.7	7.7	7.7	38.5	7.7
26 0	20	8.0	8.0	8.0	8.0	8.0	40.0	8.0
27 0	22	8.3	8.3	8.3	8.3	8.3	41.5	8.3
28 0	24	8.6	8.6	8.6	8.6	8.6	43.0	8.6
29 0	26	8.9	8.9	8.9	8.9	8.9	44.5	8.9
30 0	28	9.2	9.2	9.2	9.2	9.2	46.0	9.2
31 0	30	9.5	9.5	9.5	9.5	9.5	47.5	9.5
32 0	32	9.8	9.8	9.8	9.8	9.8	49.0	9.8
33 0	34	10.1	10.1	10.1	10.1	10.1	50.5	10.1
34 0	36	10.4	10.4	10.4	10.4	10.4	52.0	10.4



Fig. 7D

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	sh7														
2	Final nov 19														
3															
4	WBAB No.	12842													
5															
6															
7	Till '00	*377.2	24hr	24hr											
8	Month	kWh/m ² /day	BlufF ² /day	Clock	Hours	BlufF ² /hr	Ap	Shade	Room	Daily	Daily				
9	Jan	3.2	1015	7	19	12	85	2400	0.9	1	1	0.88	160,782	823,455	0.20
10	Feb	4.0	1269	7	19	12	106	2400	0.9	1	0	0	823,455	0.00	
11	Mar	5.1	1618	7	19	12	135	2400	0.9	1	0	0	823,455	0.00	
12	Apr	6.2	1967	7	19	12	164	2400	0.9	1	0	0	823,455	0.00	
13	May	6.4	2030	7	19	12	169	2400	0.9	1	0	0	823,455	0.00	
14	Jun	6.1	1935	7	19	12	161	2400	0.9	1	0	0	823,455	0.00	
15	Jul	5.8	1840	7	19	12	153	2400	0.9	1	0	0	823,455	0.00	
16	Aug	5.5	1745	7	19	12	145	2400	0.9	1	0	0	823,455	0.00	
17	Sep	4.9	1554	7	19	12	130	2400	0.9	1	0	0	823,455	0.00	
18	Nov	4.4	1396	7	19	12	116	2400	0.9	1	0	0	823,455	0.00	
19	Oct	3.6	1142	7	19	12	95	2400	0.9	1	0	0	823,455	0.00	
20	Dec	3.1	983	7	19	12	82	2400	0.9	1	0	0	823,455	0.00	



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Fig. 7E

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Wx		Rise	Set		Open hr	9:00														
2	1/20/10	Sun	Hours	Hours		Closed hr	21:00														
3	Finanov 19		7	19		# hrs	12														
4																					
5																					
6																					
7	Hour	Day	Time	open	[MPH]	mag.	[°F]	[%]	[°F]	[%]	[MPH]	[%]	[°F]	[%]	[MPH]	[%]	[MPH]	Logic	Logic	Logic	Clear Sky Factor
8	1	1	0:00	No	15	90	55	45	34.1	0								0	0	0	0
9	2	1	1:00	No	15	90	55	45	34.1	0								0	0	0	0
10	3	1	2:00	No	15	90	55	45	34.1	0								0	0	0	0
11	4	1	3:00	No	15	90	55	45	34.1	0								0	0	0	0
12	5	1	4:00	No	9	90	55	45	34.1	0								0	0	0	0
13	6	1	5:00	No	9	90	55	45	34.1	0								0	0	0	0
14	7	1	6:00	No	9	90	55	45	34.1	0								0	1	0	0
15	8	1	7:00	No	15	90	55	45	34.1	0								0	0	0	1.0
16	9	1	8:00	No	15	90	55	45	34.1	0								0	0	0	0.8
17	10	1	9:00	Yes	5	90	55	45	34.1	0								0	0	0	0.5
18	11	1	10:00	Yes	5	90	58	45	34.1	0								0	1	1	0.8
19	12	1	11:00	Yes	5	90	61	45	34.1	0								0	0	1	0.8
20	13	1	12:00	Yes	5	90	64	45	34.1	0								0	0	1	0.8
21	14	1	13:00	Yes	5	90	67	45	34.1	0								1	1	1	1.0
22	15	1	14:00	Yes	5	90	70	45	34.1	0								1	1	1	0.8
23	16	1	15:00	Yes	15	90	73	45	34.1	0								1	1	1	0.8
24	17	1	16:00	Yes	8	90	76	45	34.1	0								1	1	1	0.8
25	18	1	17:00	Yes	15	90	79	45	34.1	0							1	1	1	0.8	
26	19	1	18:00	Yes	15	90	82	45	34.1	0							1	1	1	0.8	
27	20	1	19:00	Yes	15	90	85	45	34.1	0							1	1	1	0.8	
28	21	1	20:00	Yes	15	90	82	45	34.1	0							1	1	1	0.8	
29	22	1	21:00	No	15	90	79	45	34.1	0							0	0	0	0	
30	23	1	22:00	No	15	90	76	45	34.1	0							0	0	0	0	
31	24	1	23:00	No	15	90	73	45	34.1	0							0	0	0	0	
32																	Sum	113	852	0	120
33																	Avg	9	71	0	10
34																	Limit	10	70	80	
35																	Logic	1	1	1	1
																	Number	10.50			0.88



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Fig. 7F



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Fig. 7G

	A	B	C	D	E	F	G	H	I	
1	FinalNov 19									
2										
3										
4										
5										
6										
7	Time	#	mag.	Number	Time	[DEG]	X-Y	Time	[DEG]	X-Y
8	00:01 to 06:00	1	22.5	1	12:01 to 18:00	3		22.5	17	
9	00:01 to 06:00	1	67.5	2	12:01 to 18:00	3		67.5	18	
10	00:01 to 06:00	1	112.5	3	12:01 to 18:00	3		112.5	19	
11	00:01 to 06:00	1	157.5	4	12:01 to 18:00	3		157.5	20	
12	00:01 to 06:00	1	202.5	5	12:01 to 18:00	3		202.5	21	
13	00:01 to 06:00	1	247.5	6	12:01 to 18:00	3		247.5	22	
14	00:01 to 06:00	1	292.5	7	12:01 to 18:00	3		292.5	23	
15	00:01 to 06:00	1	337.5	8	12:01 to 18:00	3		337.5	24	
16										
17	06:01 to 12:00	2	22.5	9	18:01 to 00:00	4		22.5	25	
18	06:01 to 12:00	2	67.5	10	18:01 to 00:00	4		67.5	26	
19	06:01 to 12:00	2	112.5	11	18:01 to 00:00	4		112.5	27	
20	06:01 to 12:00	2	157.5	12	18:01 to 00:00	4		157.5	28	
21	06:01 to 12:00	2	202.5	13	18:01 to 00:00	4		202.5	29	
22	06:01 to 12:00	2	247.5	14	18:01 to 00:00	4		247.5	30	
23	06:01 to 12:00	2	292.5	15	18:01 to 00:00	4		292.5	31	
24	06:01 to 12:00	2	337.5	16	18:01 to 00:00	4		337.5	32	



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Fig. 7H

	A	B
1	Finalnov 19	
2		
3		
4		
5	Wmf	
6	[DEG]	Vw Matrix
7	mag.	Number
8	22.5	1
9	67.5	2
10	112.5	3
11	157.5	4
12	202.5	5
13	247.5	6
14	292.5	7
15	337.5	8